



Dr. Stanley C. Freden (left), Chief of the MSC Space Physics Division, chats with Carlos Elizondo, the executive secretary of the Mexican National Commission for Outer Space. In the background you can see the multi-polarization telescope, equipped with four electric Hasselblad cameras—part of the equipment used by the MSC scientific team.

March 7 solar eclipse: Sharing was the key

By Bob Gordon

Eyes peered skyward, cameras clicked and in the distant valley church bells chimed shortly before noon on March 7 as the darkness of night swept across the Sierra Nevada mountains deep in southern Mexico.

For three and a half minutes the mountains and valleys, bleached by a scorching sun since dawn, paled as the Moon totally blocked out the Sun.

A Mexican army private, a rifle slung over his shoulder, commented "It felt only like night had arrived; the coolness and dampness of night came."

To Dr. Stanley C. Freden, Chief of the MSC Space Physics Division, the 1970 solar eclipse "was a smashing success." The scientific equipment, cameras, telescopes, etc. worked perfectly and early readouts of the data look beautiful," Dr. Freden said after viewing the total eclipse from MSC's campsite above the town of Miahautlan, Mexico.

The area around Miahautlan took on an atmosphere similar to that at Cape Kennedy prior to launch of an Apollo lunar landing mission. Tens of thousands of scientists, amateur astronomers, and average folk, flocked to this little town of about 8,000.

Scientists from more than 14 nations crowded into available mountainside locations to record the eclipse. Awaiting the spectacular event people crowded into and ontop of autos, trucks, and buses which were strung out for miles along the narrow roads.

MSC Team was there

The MSC group of scientists and technicians, headed by George Bonner of the Optical Experiments Section of MSC's Space Physics Division, camped out in the mountains setting up and calibrating the more than 20 pieces of gear related to the 8 NASA experiments.

Bonner, whose interest in his work is matched only by his in-

terest in and for others, described the cooperation of the Mexicans as "completely delicious." It was Bonner's responsibility to make sure the MSC expedition and its technical gear which travelled to the Miahautlan site by truck from Houston, was set up and ready to capture the solar eclipse on film and other data gathering instruments.

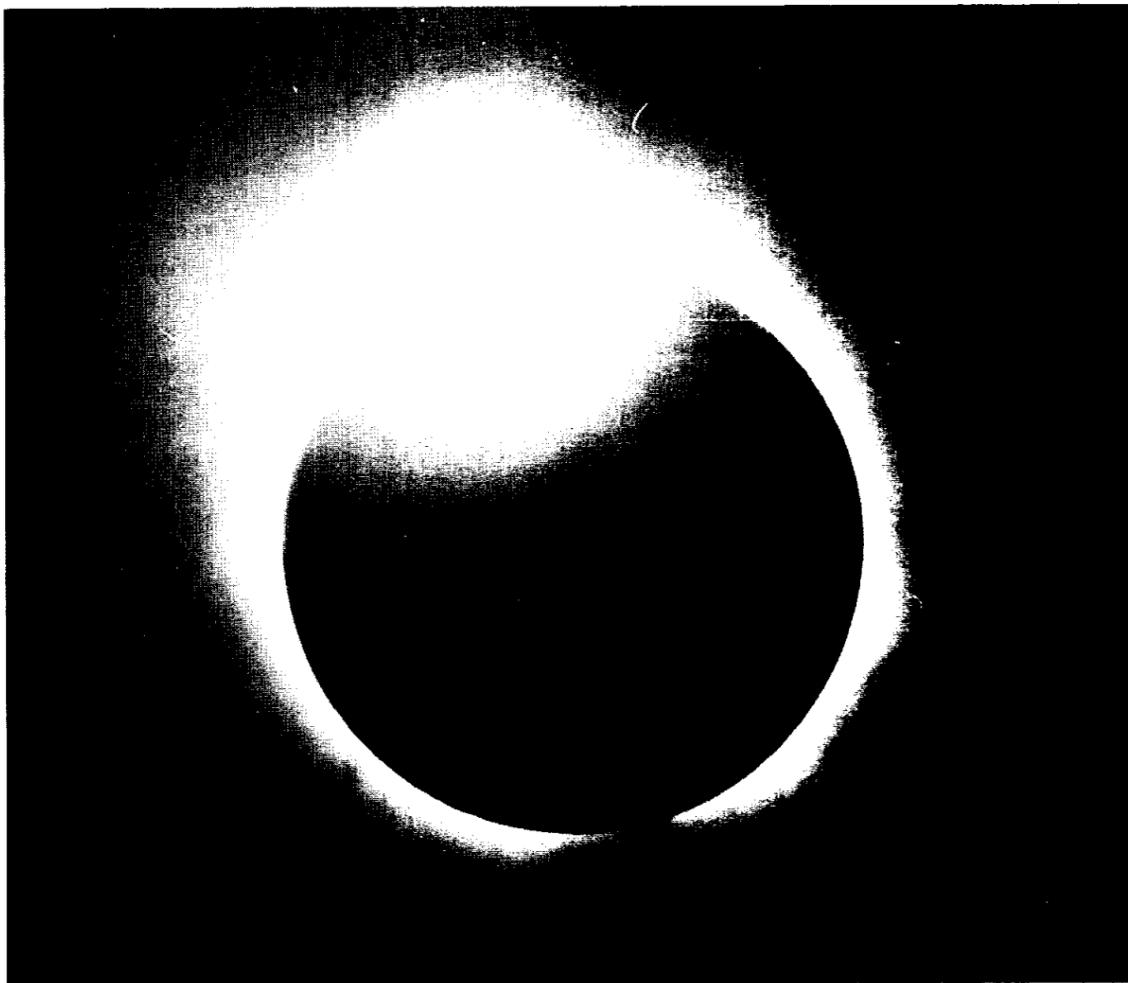
Despite the months of advance planning NASA and other scientists undertook for 210 seconds of data gathering, glitches cropped up. On the eve of the solar eclipse one of the MSC experiments came close to being pulled off line when one of the polarized lenses required in Dr. Natalie Kovar's experiment developed a crack.

Bonner arranged with Russian scientists, camped about 3 miles down the road, to borrow a spare lens for Mrs. Kovar's experiment. Thanks to the spare Russian lens, Mrs. Kovar reported her experiments performed perfectly, receiving and recording good data.

On the morning of the eclipse the MSC group rescued scientists of Penn. State University who hurried down from their site a mile up the road to report their electric power generator went out. Bonner quickly arranged the loan of MSC's spare generator to the Pennsylvania group. The Pennsylvanians were then able to operate their complex telescopes and record the eclipse.

The MSC campsite, by far the most popular attraction to the thousands of visitors, was located adjacent to the official campsite of the Mexican National Commission for Outer Space (CNAE). Carlos Elizondo, executive secretary of CNAE, was impressed with the MSC camp operations.

Elizondo described the Mexican-American cooperation on the solar eclipse as "a marvelous thing." He said, "We (CNAE) are happy to be next to the



NATURE'S "DIAMOND RING"—a moment before the eclipse became total, this was the view from the hills outside Miahautlan, Mexico.

photo by I. Saulietis

NASA campsite; it is symbolic because of the long term cooperation of the NASA and the CNAE."

A Miahautlan peasant, in sandals and a straw hat, who viewed the eclipse from outside the MSC campsite, seemed to sum up the general feeling, "I have no words to describe it; it was beautiful."

* * *

Official photos of the eclipse were not yet available when the "Roundup" went to press. These pictures of the sun were taken by I. Saulietis, an unofficial representative from MSC. For the shutterbugs among us, he used: telescope 60" focal length, 6" aperture; 12" heliostat for pointing; 24x24 SLR camera (Bronica) at 1/20 to 1 second, on Plus-x film.

Moon rock is socko

(reprinted from the Houston Post, March 19, 1970)

Houston and the Manned Space Center can take a bow in connection with the opening of Expo 70 in Japan. The hit of the American Pavilion, indeed of the entire exposition on opening day, was a lump of rock brought back from the moon by Apollo 12.

"Please help us," a Japanese guard asked an American official. "We don't have enough men to stop them."

He was referring to the Japanese crowd pouring into the United States Pavilion. They came at the rate of 8,000 per hour on opening day. The moon rock, about the size and shape of an eggplant, was the drawing card and seems certain to continue as one of the great attractions of Expo 70.

That should hardly be surprising to anyone. After all, it is unquestionably the most expensive lump of rock ever dug up in man's history. Some of the Japanese waited up to 90 minutes to get into the U.S. show, but seemed to think the wait was worth it. "I've seen most of the big pavilions, and this is the best," said a young Japanese woman on opening day.

At a time when so many things have gone badly for the U.S., it's nice to have an unqualified hit on our hands.

Egg Hunt rained out-- Bunny to try again Sat

Rain and/or wet grass, along with the cold winds last Saturday caused postponement of the EAA Easter Egg Hunt until tomorrow, Saturday, March 28. EAA President Dave Bell called off the Hunt, he said, "Because I knew that with all the sickness going around already, parents would surely not want to expose their children to that kind of weather."

At latest report, the weatherman says that chances are good

for a nice day tomorrow. If it does rain again, the Egg Hunt Committee will set up a booth right at the turnoff for the Recreation Area behind buildings 221 and 222. They will distribute the eggs, chocolate bunnies, baskets and grass, so you can have a hunt of your own sometime, if the sun decides to shine.

If you still haven't gotten a ticket for your child, see Dave Bell in room 264-D of Bldg. 16.

15 crew announced

NASA announced yesterday the prime crewmen for the Apollo 15 mission. The Astronauts are: David R. Scott, commander; Alfred M. Worden, command module pilot; and James B. Irwin, lunar module pilot.

The backup flight crew consists of Astronauts Richard F. Gordon, Vance D. Brand, and Harrison H. (Jack) Schmitt.

Members of the support crew are Astronauts Karl G. Henize, and Robert H. Parker.

Supporting Development Branch: ... from sunbonnets to machetes

The Supporting Development Branch of Crew Systems Division is unique, and justifiably proud of itself—but it is also puzzled. "For some reason, very few people not already connected with our operation know about the facilities we have over here", Branch Chief Matthew I. Radnofsky said the other day. He was making a presentation to a convention of clothing designers here at MSC. The conventioners were amazed and enthusiastic about what they saw. But they saw only a minuscule portion of the in-house fabrication going on in the "factory" of Building 7. They gushed over how pretty the 2-pass Beta, the Nomex, and the aluminized Kapton are.

Actually, the fact that some of its products are pretty is purely coincidental. What is significant is that the Branch routinely designs, develops, fabricates, tests, and evaluates Crew Provision equipment for all phases of manned space flight missions. Crew Provisions Section Chief Jim Barnett has even gone along on survival training trips such as the one to Panama, to get the crew's reactions to designs originated in EC7.

Taken as a whole, the branch boasts the largest single textile and soft material production facility at MSC. Frequently Dr. Radnofsky will be handed a problem—perhaps to figure out a way to keep life rafts from tipping over. Sometimes the task will require the development of a new fabric, unique to the needs of space flight. If so, the Materials Development Section takes over.

Having found a suitable textile, they turn the job over to Jim Barnett, who works with Dr. Radnofsky to come up with a practical design for the article. On an assignment like the stable life raft, the solution was to construct "buckets" to drag through the water. The rafts are now virtually un-tippable.

Slippers to litters

Prototype models, and, in some instances, the flight articles themselves, are then manufactured in "the factory" in Building 7. Right now the operators in the shop are turning out deerskin "slippers" for the astronauts to wear inside the spacecraft, and are manufacturing the floatation device which the Landing and Recovery Divisions will use on its Stokes

litters—to recover injured men from the water.

The Branch inventory includes more than 100 separate items: from bio-isolation garments to helmet bags, survival kits, and micro-meteoroid protection, and on through sunbonnets which can also be used as buckets.

Supporting Development frequently works closely with Technical Services, where the hardware is often constructed.

Most of their work is performed in support of the Crew Systems Division itself, SMD, and FCSD. The Medical Directorate and Cape Kennedy are also "steady customers", and the Air Force and Navy have adopted several of the Branch's innovations, notably some life-raft production techniques, and are evaluating some survival kit components.

Timeliness is another "plus" proven by the Branch. They can usually provide the necessary items in much less time than that required by private contractor firms.

Dr. Right-now-ski

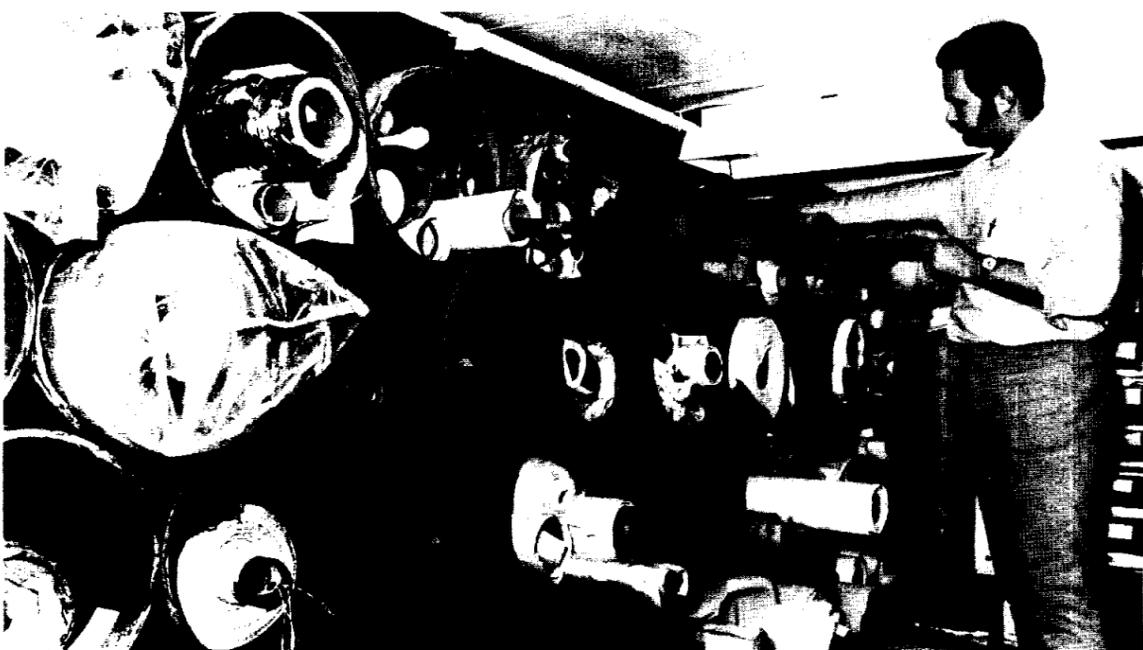
What about the man who heads the Branch? He's difficult to describe. He has been nicknamed "Dr. Right-now-ski" (a name which delights him), and "The Mad Russian," but neither of these names really gives you the picture. He is flamboyant, yes, and has seemingly endless energy; ideas and instructions seem to explode from him. People flow in and out of his office constantly, and he is never too busy to see any of them.

Born in Boston, educated at Boston University, he first joined the Air Force, where he was a navigator. "Not a lucky flyer, though", he says. "I was shot down while flying over Germany during the War."

When the war ended, he took his Master's Degree at Boston Uni-



Branch Chief Radnofsky (r) and James Barnett, head of the Crew Provisions Section, at work.



These are just some of the many different kinds of "space age" fabric which the Supporting Development Branch uses in the fabrication of soft goods. The Branch has no weaving machines of its own, but many of the basic "threads" originate in its labs.



These flotation collars for the Stokes litters are currently being manufactured in one part of "the factory" in Building 7. The men who do the stitching must be capable of performing all aspects of the actual fabrication process.

versity, in Physiology, then took a job as a school teacher. One year on a salary of \$1800 was enough. He took a job as a civilian in the Navy, as a physiologist assigned to designing exposure clothing. Later he switched to a job with a men's sportswear firm, setting up a chain of alliances in England, France, and Italy. He worked for the firm as a clothing designer, originator of manufacturing techniques, and purchaser of raw and finished goods. As a result of his travels, he is now conversant in five languages.

In 1961 he came to MSC, where he has held a variety of positions associated with the Apollo Program. He transferred to Headquarters for a brief period, but when he had a chance to return to MSC, first on TDY, and then as head of the Supporting Development Branch, he accepted. The reason? "Well, I'll tell you, I missed the place, that's all."



The clothing designers "oohed" and "aaahed" over this use of space-age fabric. Crew Systems Division Administrative Assistant Virginia Hughes wears a suit of Nomex, to show the versatility of the fabric.

Golf Club competition winners:

The MSC Golf Association held its first tournament of the year at Sunmeadow Golf Club with 62 members participating. **Jim White** had the low score of the day, an 82.

John Jones was the winner of the championship flight with an 83-14, 69 total. **Bob Epperson** was second with 84-13, 71; and **Milt Heflin** and **Ken Young** tied for third with net scores of 72.

Pete Smetek won the first flight with an 83-16, 67 score. **Mike Hendrix** was second with 89-20, 69; **Jim Smith**, third, 90-17, 73; and **Tom Gibson** and **Jerry Shinkle** tied for fourth with net 76's.

Steve Gorman won the second flight with 104-32, 72. **Louis Leopold** was second with 97-24, 73; and **Ben Hood**, **Bob Lacy** and **Carey Lively** tied for third with net scores of 77.

The next tournament scheduled is at Long Meadows Country Club on April 25.

Attention, Softball Managers:

The MSC Slow Pitch League organizational meeting will be held on Wednesday, April 8, at 5:15 pm in room 716 of Building 2. The Fast Pitch meeting will be held the following day, in the same room at the same time.

All MSC, active military and support contractor employees are eligible. Each team should be represented.

Questions should be referred to Dennis Doherty, x2741.



Darleen Case and Tony Barron look on as wig stylist Don Worley shows his model, Carole Kelley, the way to make the most of wigs, wiglettes and falls.

"9 to 5" beauties

If Spring seems somehow more beautiful this year, maybe your secretary is the reason. The "9 to 5" series of secretarial training classes got a little extra instruction recently—a wig stylist, a make-up artist, and an accessories expert all presented demonstrations to the group. The purpose, of course, was to point out that what might be called "subconscious" communication goes on all the time. Whether or not a secretary is speaking to someone, she is making an impression. And a stylish woman can't help but make a better impression than a sloppy woman will — no matter how their

stenographic skills compare.

Different wig styles were related to face shapes, neck length and skin coloring. Naturalness was emphasized in make-up, along with tips on skin care, and manicure suggestions.

Audrey Lemmons brought out the practical aspects of accessorizing—showing how a few good accessories can fill a wide number of needs.

No matter how closely one follows beauty "do's and don't's" there is usually something new to learn. The "Nine to Five" girls are up on the latest.

It's not too late to learn to play bridge

Classes continue to be formed for beginners and intermediates in the MSC Duplicate Bridge Club. A partner is guaranteed at all tournaments, so come on out to Bldg. 336 at Ellington. John Hermann, x2395, will instruct the beginner's class; Jim Raney x3281, leads the intermediates. Check with them for the time and day when your group meets.

Second chance for boat inspections

If you missed the courtesy boat examination arranged by the EAA for MSC boat owners, or if you "flunked" the exam, don't despair. The US Coast Guard Auxiliary has arranged several more days when you can have your boat OK'ed.

- Shed B at the Seabrook Shipyard will be set aside for boat examinations most every weekend. Call Mort Konig, PA 3-4877, or Henry Lam, 468-5572 to be sure.
- On April 5, inspections will be given at Northline, Gulfgate, and Sharpstown Shopping Centers, and at the Holiday Mall in Galveston.

The most frequently occurring discrepancies are improper ventillation of gas tanks and unacceptable fire extinguishers. Mr. Konig or Mr. Lam can fill you in on all inspection requirements. . .

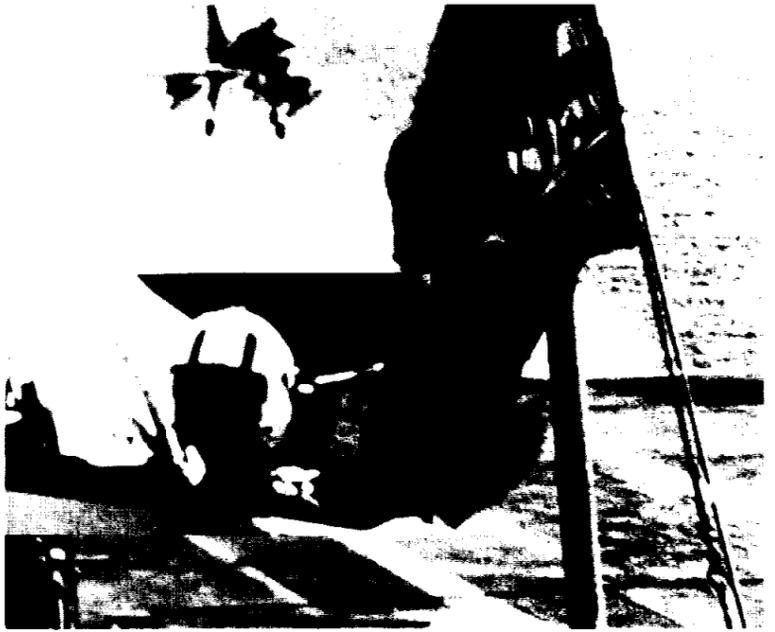
Winners in the February Novice Game were *Chuck Denham* and *Arland Actkinson*. *Dick Boster* and *Ben Micszkeg* were the winners of one of the Tuesday Invitational Games; *Bill Farries* and *Bruce Schraufnager* won the following week.

The Sunday Open Game played on February 22 was won by *Edith Reid* and *Alice Gowdey*; the game played March 8 ended in a tie between *Ron* and *D. J. Sanders*, and *Jim Raney* and *John Hermann*.



Doug Burns, of the Personnel Division, won First Place in the Speak-up contest held at the District III Jaycee Convention in Corpus Christi last month.

After accepting his award, Doug presented his speech before the convention body of several thousand conventioners.



Tom Kloves (see insert), Technical Assistant in the Skylab GSM Project Office, participated in a "first" recently. The Naval Reserve Squadron of which he is Commanding Officer became the first entire Reserve squadron ever to qualify for aircraft carrier landing on a sea-going carrier. Flying the A-4 "Skyhawk", each man in the outfit made 10 arrested landings on the USS Intrepid. A new accomplishment for the "Weekend Warriors"!

U.S. Navy movie film enlargements

Roundup Swap-Shop

(Deadline for Swap-Shop classified ad is Thursday of the week preceding Roundup publication date. (8 days before publication). Ads are limited to MSC civil service employees and assigned military personnel. Maximum length is 15 words, including name, office code and home telephone number. Send ads in writing to Roundup Editor, AP3.)

REAL ESTATE

3-2-2 League City Newport, Spanish, beamed cathedral ceiling, central a/h, equity, 5 1/4%, 932-2750, Browning
 Rent 2-1 1/2-2 CLC townhouse, drapes, patio, storage area, washer-dryer connections, new paint, \$185/mo., available immediately, x3661, Deans, or 488-4009
 3-2-2 brick, League City, carpet, central a/h, equity and assume 6 1/4%, payments \$150/mo., x2001, or 932-4165, Ojalehto
 Must sell 33 acres for \$2500 down, balance of \$4950, or sell for less for cash, timber, river front, no pollution, 483-2246, Nickerson
 3-2-2 Seabrook, Spanish, air, fenced, pool, \$190, x2201, Chandler, or 474-2129
 4-2 1/2-3, Nassau Bay, contemporary ranch style, corner lot, wooded, 591-2287, Hughes
 3 off-water lots, Lake L.B.J., Sherwood Shores, \$295 each, 479-2395 after 5 pm
 3-2-2 Nassau Bay townhouse, sale or lease, utility room, deluxe extras, 1-story, 591-2287
 Lease: 2-1 1/2-2 Nassau Bay townhouse, pool, screened patio, furnished or unfurnished, 591-2958, Hagge
 3-2-2 contemporary home with beautiful trees in Dickinson, assume 6% loan, 534-4955, Reed
 4-2-large 2, fireplace, built-ins, 1 1/2 story, 1 acre wooded lot in Dickinson, low interest rate, x5316, Mary, or 534-2793
 3-2-2, Alameda Mall area, fenced, paneled den, carpeted, all brick, central air, heat, 5 1/4% loan, 944-2838, Chopkins
 Lease: 3-3-2 Bayou Brae, League City, central a/h, \$180/mo, year's lease, 932-2857, Alford
 Clear Lake City Townhouse, two bedroom, three bathroom areas, walk-in closets, carpets, built-in appliances, lovely patio, two car garage, ample storage. Two blks from Elementary School, 5 minutes from MSC. For Sale by owner, equity \$2000.00, available for immediate occupancy. Call A. Davis, 483-2031 or 488-3508.

MISCELLANEOUS

Dinette, 4 chairs, \$25; vacuum cleaner, \$15; 488-0624 after 5
 Complete Sonor drum set: snare, bass, tom-tom, 20" cymbal, bass floor tom-tom, high hat w/14" cymbals padded seat, \$295, HU8-4005

Cornet with case, mute, cleaning kit, good condition, \$70, x4576, or 591-4168, Heselmeyer.
 Two rose-colored living room chairs, excellent condition, 591-4275
 Kroeher recliner chair, olive green, \$50; Early Am. drop-leaf end table, \$30, all like new, x3661, Deans, or 488-4009
 45 hp 1968 Chrysler outboard engine, used 30 hours, stored since May '69, \$350, x5165, Mullins, or GR1-3086
 Boys 24" Murray bike, reconditioned, \$18; Girl's 24" Murray bike, fair condition, \$10, 471-2542, Gammon
 Englander Tensionease mattress & box springs, queen size, recently rebuilt and sanitized, 932-3969, Gatlin
 Tanaka surfboard, 8'4", V-bottom, \$70, 877-4405 after 5pm, Ligrani
 Dolphin Sr. sailboat, ice box, galvanized trailer, used 10 hrs., \$525, x5928, Gammon, or 471-2542
 CAL20 sailboat, 2 sets of sails, spinnaker, 3 hp o.b., heat, \$3200, Nelson, 649-0723
 2-wheel utility trailer & cover, 4'x8', tilt bed, excellent condition, \$125 or best offer, 932-2996, Sanders
 13'7" Boston Whaler, 33hp Johnson, manual start, controls, Sportsmen galvanized trailer, custom cover, \$895, 932-2092
 Royal blue living room chair, traditional style, perfect condition, \$35, 488-4372
 Lawnmower, \$16.50, 591-2287, Hughes
 Royal electric typewriter, extra long carriage, Elite type, excellent condition, \$75, x4957, Stafford, or 877-1391
 14' fiberglass ski boat, 50hp Merc 500, less than 50 hours running time, excellent condition, big wheel trailer, must sell, \$900, 645-7932 after 6
 2-wheel utility trailer, new 8.55x14 tires, \$75, 479-1295 after 5
 1964 Glastron ski boat, 14', 90 hp Johnson, trailer, complete ski accessories, \$1000, 591-4067, Cazemier
 Philco portable dishwasher, frontloader, copertone, cutting board top, '69 model, excellent condition, \$175, 482-1427, Gray
 Competition ski and power boat, 18' Rayson Craft, 500 hp/427, like new, 926-8994, Oczkow-

ski
 Gold Bulova Excellency watch, 21 jewels, w/ band, \$25, 932-5622, Cobb
 Volkswagen luggage carrier, heavy-duty canvas & platform, waterproof zipper, safe, easy mounting, spacious, x2468, Jerry
 Sextant, Davis Mark II, 4926, Goodrick
 Apache Eagle camping trailer, sleeps four, with spare tire and aluminum road cover, very good condition, \$500, RE4-2711 Gaudiano
 Ampex stereo tape recorder player M/800, with speakers and 32 tapes, (cost \$6-10 each), \$200, x5807, Hall, or 645-1216
 Aurora 21 keel boat, sleeps 4, Genoa, Spinnaker, working sails, dry-sailed at HYC., x2001, Young, or 925-3312
 22 cal. pump action rifle, \$40; 22 cal. Luger pistol, \$35; x2241, Regenburgh, or 944-2433
 6' jungle hammock with integral top and mosquito-proof sides, \$7; dark brown human hair wiglet with case, never worn, \$15, x4726, Lippitt, or M19-3200
 Riding lawn mower, used one season; also window air conditioner; x2871, Sheppard, or 932-6098
 Camper shell for short-wheelbase pickup with style-side bed, x4924, Hawkins, or 932-3845
 Scott mono FM tuner (needs minor work), \$15; Stomberg-Carlson mono 12w amp, \$12.50; FM stereo signal booster, \$5, 488-3966, Musgrove
 Lido 14, sailboat, trailer, life preservers, excellent condition, \$1,050, 591-3886, Wilson.
 Depth finder, portable or 12v, 0-200 feet, used 1 season, \$65, x5595, Ward, or 487-2266
 Astronomical telescope mirror, six-inch f/10.8, mirror cell included, \$35, 591-3709, Shreffler
 13' fishing boat, complete with motor & trailer, \$275, 944-2497, Westover
 20" bicycle, boy's or girl's, hard tires with training wheels, excellent condition, \$10; also 30 cal. M-1 carbine with maple stock, rebled, scope, reloading dies and ammo, \$150, 944-2838, Chopkins
 Dolphin Sr. sailboat with galvanized trailer, new last year, \$500, x2731, Toole
 Briggs & Stratton 4-hp engine, good condition, \$30; also small fiberglass sailboat complete with sails, safe for beginners, \$75, 932-

2857, Alford
 13' Boston Whaler, 40 hp Evinrude, low hours, like new, loaded, \$1500 firm, 877-3102, Jones
 Yard work, 534-3225 (Dickinson)
AUTOS
 64 Corvette coupe, 4-speed, 327, \$1800 firm, 591-3934, Henry.
 67 Suzuki X-6, Hustler, 250cc, 488-3635, Campbell
 63 Chevy Bel Air 4-dr sedan V-8, air, radio, no beauty, needs minor repairs, \$150, x5511, Gordon, or 944-4742
 53 Studebaker Champion, overdrive, fugitive from junk yard, make offer, x5927, DeMoss, or 488-4019
 60 Mercury Monterey 4-dr, rebuilt transmission, new brakes, good work or school car, \$150, x3216, Morris, or 482-7775
 69 Corvette, green, vinyl hardtop, 350/350, positraction, air, am/fm, available about 4/24, \$3950, 591-3671, Hutchinson
 69 Corvette convertible, green, white top, automatic, 350 engine, positraction, pwr steering, air, 932-5622, Cobb
 Chevelle Super Sport 396, air, power, 4-speed, perfect condition, sacrifice, 926-8994, Oczkowski
 68 Olds Delmont 88, power, air, new tires, \$1995; also 65 Olds, 88 2-dr hdt, air, power, very clean, \$895, 472-0497, Wise
 65 Dart 270, air, automatic, excellent transportation, \$675, 474-3497, Newman
 61 Falcon 4-dr sedan, automatic, radio, heater, \$275, 482-3309, Robinson
 66 Rambler 770 station wagon, air, automatic, low mileage, excellent condition, \$975, 471-0172, Sampels
 64 Dodge, 4-dr, V-8, stick, factory air, good second car, \$500, x7447, Fuller
 64 Impala, 9-passenger wagon, V-8, air, automatic, power, excellent, one owner, 482-7546, Nassiff
 65 red Mustang, V8, power, air, good running condition, one owner, \$550, see at 140 Imperial Dr., Friendswood, x4588, Kraft
 66 Buick LeSabre, 4-dr sedan, a/c, power, good condition, \$1195, 877-4103, Bond
 66 Honda, 300 cc's, electric starter, saddle-

bags, windshield, \$300, x3268, Williams
 51 Dodge panel truck, good condition, \$150, x7365, Incerta, or 944-0387 after 5pm.
 61 Porsche coupe, 1600N, 27000 actual miles, new paint, excellent, \$1600, x5348, Contella, or 488-0284
 68 Impala Sports Sedan, 15k miles, AM/FM, power, air, 591-3071, Weitz
 63 Chevy II Nova, factory air, automatic, clean, runs well, \$535, 471-3284
 61 Corvair, new paint, good tires, excellent second car, \$275, 944-2838, Hopkins
 62 Pontiac Tempest, 4-cyl automatic, brand new tires, good second car, \$200, x4971, Karakulko, or 471-4844
 64 Ford Galaxie 500 hdt, loaded, excellent, \$750 or trade for good pickup, 932-2857, Alford
 63 Corvair Spyder Monza, good shape, loyal machine, 52k miles, \$250, x4757, Carrier, or 591-3405

WANTED

Drivers to join carpool from Alvin, 7:30 4:00, x2061, Huepers, or 658-4394
 Stationary bicycle exercisor, x4511, Peck, or 471-2856
 Baby carriage and rocking chair, M19-7780, Barry.
 Baby bed and mattress in good condition, x2081, Fischer.
 16' Larson shark rig, will pay top blue book plus, depending on condition, 488-4417, Ville-marett

PETS

Miniature poodle, black male, 8 weeks old, AKC, shots, 488-1349
 Free AKC Beagle, with papers, male, 12 mo. old, loves children, 482-7041, Handley
 Two female kittens, cute, tiger colored, M19-3200, Lippitt
 AKC Dalmation puppies, champion sired, pet or show, ready for sale 4/15/70, x3888, Wallin, or 487-3590.
 AKC registered, spayed Beagle, 3 years, housebroken, needs room to run; also doghouse, both free, x7372, Norris, or 877-2649
 AKC Basset pups, champion line, well-marked, \$100, 487-3158 after 5 pm.

SPOTLIGHT

The lady is a scientist

Today there are women in government service who make the fears about "Womens Rights" seem ludicrous — they are well-trained and expert; they work in positions of great responsibility and are accorded the respect due them as professionals precisely because that is what they are. Nor have the fears of the anti-feminists materialized. These women do not chew tobacco, have tattoos, or cuss like stevedors.

Witness the subject of this week's "Spotlight"—Dr. Carolyn Sue Leach. She is the Principal Investigator for one of the Medical Directorate's three experiments considered "top priority" for Project Skylab—that is, necessary to qualify man for long-duration space missions.

"When I first came here", Carolyn says, "it was just me. There was no real budget for studies on changes in the astronauts' hormone balance. Now the lab has three medical technologists and a healthy budget. We're trying to find better ways to look at hormones, and to clarify present techniques. Our goal is to get the best laboratory possible all in one place, rather than spread out between various universities, hospitals, or government facilities."

Carolyn works for NASA under a research grant administered by the National Academy of Science. Her Associateship is in endocrinology, a field which she has pursued in detail since her work on Gemini 7 specimen analysis. Of course, her whole academic career has been slanted in this direction. She majored in the biomedical sciences, especially biochemistry and physiology for both her Masters and her PhD degrees, both of which she earned at Baylor University College of Medicine.

Much work currently being done in biomedical sciences is done on animals. Dr. Leach knew early in her career that she preferred to work with human systems. While working toward her Master's degree she researched portions of a project which Baylor had on contract from NASA. She was interested in the hormone changes seen in pre-and post-flight blood and urine samples from Gemini 7. Some of these changes could be explained, some could not. Nor were scientists sure whether the changes occurred during the flight itself, or were a reaction to the stresses of re-entry



Dr. Carolyn Sue Leach

of the atmosphere or splashdown. She pursued the topic further in her PhD dissertation.

In her discussion with NASA personnel she was surprised to learn that no further studies in this area were being carried out within NASA. She proposed one such study. The National Academy of Science agreed that her proposed project was essential to the ability of scientists to anticipate the effects of long-duration missions.

The result of all this is experiment MO-73: "Bioassay of Body Fluids", which will be flown on Skylab. The bioassay will investigate changes in the balance of hormones controlling body fluids and electrolyte balance. Not only will Dr. Leach and her colleagues determine when changes occur and what the changes are, but they will be able to see whether these

changes can be controlled through remedial measures.

In addition to MO-73, Carolyn plays an active role in studies being conducted with Ames Research Center on the thyroid and adrenal glands, with the food and nutrition groups within NASA, and with other scientists studying the cardiovascular system. She is involved in Project Tektite, and the Sealab Project, as well.

More than enough to keep anyone busy. Yet somehow Dr. Leach also manages to look after her family and enjoy a bit of recreation, too. She likes to play tennis and swim. Her husband works at jogging to keep fit, but Carolyn says she isn't quite that gungho. More often than not she ends up spending at least part of the weekend back in the lab. "It's hard sometimes", she admits. "I get tired, sure, but it's well worth it."

Enjoy your vacation this year!

Do you plan to vacation in Central America? Europe? Asia? If you do, don't listen to all the dramatic stories from your friends who had various attacks of this and that on their trips, but do follow a few simple rules.

- ☆ Your travel agent will tell you the immunizations you will need.
- ☆ Plan to eat in recognized restaurants—not in the "quaint" little places off the beaten track.

- ☆ Eliminate fresh salads from your diet.
- ☆ Keep your hands washed at all times.
- ☆ Drink only boiled or pasturized milk.
- ☆ Want to brush your teeth? Most hotels have a sign posted in your room stating whether or not the water is potable. Observe it. Get acquainted with tablets that purify water for your use or thirst.
- ☆ If you take special drugs (such as insulin) be sure to take a supply with you. Your brand may not be available in another country.
- ☆ Ask your doctor for one of the current medications for diarrhea.

HAVE A GOOD TIME!

Your Job in Focus

FEGLI OPEN SEASON

Remember that March 31, 1970, is the last day of the "Open Season" to sign up for regular, optional, or *both* types of life insurance coverage offered by the Federal Employees Group Life Insurance Program. If you wish to change your present coverage, contact the Administrative Section, extension 7381.

JOB OPENINGS

The Personnel Division has received notification of the following positions available with private industry:

Fire Protection Engineer - Bendix Corporation - Kansas City, Missouri

Faculty position - Computer Science Department - University of Nebraska, Lincoln, Nebraska

Electronics Technician (Test equipment) Methodist Hospital, Houston, **Bacteriologist** - Baylor College of Medicine, Houston, Texas

Employees interested in further information should contact the Placement Section, x2135.

Apollo 8 crew wins Trophy

Vice President Agnew presented the 1969 Harmon International Astronaut's Trophy to the Apollo 8 astronauts earlier this month in a ceremony in Washington. Astronauts Frank A. Borman, James A. Lovell, and William A. Anders (now Executive Secretary of the National Aeronautics and Space Council) were awarded the 1969 Astronauts Trophy for their December 1968 flight, which included 10 orbits around the Moon. Their flight was chosen as one

which made especially significant contributions to the Moon landing of Apollo 11.

The Apollo 11 astronauts will be eligible for the 1970 Harmon Astronaut's Trophy.

Other aviators, balloonists, and astronauts who have been recipients of the award include Charles A. Lindbergh, Amelia Earhart, Jeanette Piccard, the crews of Gemini VI and VII, and L. Gordon Cooper, Jr.



The Apollo 8 crew—Frank A. Borman, James A. Lovell, and William A. Anders: recipients of the 1969 Harmon International Astronaut's Trophy. Their flight of December, 1968, was chosen as one which made especially significant contributions to the Moon landing of Apollo 11.



Who could refuse to contribute to the NHA-ISA fund drive when someone like Dorothy Phelan came around collecting? Dorothy, Administrative Specialist for the Office of the Manager of the LRL, chose Saint Patrick's Day to wear a shamrock green dress, and a tall green hat with green streamers. She made the hat to wear while collecting for the fund drive. It worked, too; She got 100% participation from her area.

ROUNDUP 
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